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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,784	12/02/2003	Derrick L. Garmire	POU920030138US1	3823

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EXAMINER	
PATEL, HARI	
ART UNIT	**PAPER NUMBER**
2115	

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/725,784	GARMIRE ET AL.	
	Examiner	Art Unit	
	Hari Patel	2115	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/02/03*. 4/11/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 9, 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claims 1, 9, and 17 (lines 4-6; 4-6 and; 5-7, respectfully) recite the "said timer measuring a length of time which said data packet is stored in said central queue and comprising one timer of a plurality of timers disposed in timer logic external to the central queue" (emphasis added by Examiner). It is not clear what limitation is comprising one timer of a plurality of timers disposed in timer logic external to the central queue. It is believed that the external timer logic comprises one timer of the plurality of timers, however, the claim is read though as if "said timer" comprises one timer of a plurality of timers disposed in timer logic external to the central queue.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 9, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guttman et al. (U.S. Patent No. 7,031,259), and further in view of Ross et al (U.S. Patent No. 5,247,517).

7. As per Claim 1, Guttman et al. (hereinafter, referred to as "Guttman") teach a packet processing method for a node of a data transfer network *(Abstract)*, said method comprising:

associating a timer with a data packet received and stored by a central queue *(Fig. 3 – Buffers 70_{1-4})* of the node, said timer measuring a length of time which said data packet is stored in said central queue *(col. 8, lines 7-12)*, said timer external of the central queue *(Fig. 3 – Control Unit, 76)*;

providing said length of time to said central queue *(Fig. 3 – Control Unit, 76)* when said central queue is ready to transmit said data packet; and

allowing transmission of said data packet if said length of time is less than a defined target, and preventing transmission of said data packet if said length of time is greater than said defined target *(col.8, lines 7-12)*.

Although Guttman does not explicitly disclose a timer associated with a data packet received/stored by the central queue, Guttman discloses a method where the time is measured of how long the packet has been stored in the central queue. Therefore, some sort of timer must inherently exist to measure that time that packet has been stored has exceeded a certain threshold.

8. Guttman, however, does not teach one timer of a plurality of timers disposed in a timer logic. Specifically, Guttman teaches a packet processing method for a node of a data transfer network, said method associating a timer with a data packet to determine the length of time the data packet has been stored. Guttman fails to teach that the timer is comprised in an external timer logic, along with a plurality of other timers.

9. Ross et al. (hereinafter, referred to as "Ross") teach a packet processing method for a node of a data transfer network *(Abstract)*, said method comprising:

one timer of a plurality of timers disposed in a timer logic external to the central queue *(col. 2, lines 44-50; col. 7, lines 9-45 and; Fig. 1 – Timers, 27)*.

10. It would have been obvious to one of ordinary skill in the art to combine the teachings of Guttman and Ross because they both teach a packet processing method for a node of a data transfer network. Ross' teaching of a plurality of timers shows that each data packet can be associated with an individual timer, while the plurality of timers are disposed within an external circuit, independent of the queue.

11. As per Claims 9 and 17, they are directed to a packet processing system and a program storage device to perform packet processing method for a node of a data transfer network. Since Guttman – Ross teach the packet processing method for a node of a data transfer network, as applied to Claim 1 above, Guttman – Ross also teach the claimed packet processing system and program storage device able to perform the packet processing method.

12. Claims 2 – 8, 10 – 16, and 18 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guttman et al. (U.S. Patent No. 7,031,259), and in view of Ross et al (U.S. Patent No. 5,247,517) and in further view of Fiacco et al. (U.S. Patent No. 5,659,720).

13. As per Claim 2, Guttman and Ross teach the packet processing method for a node of a data transfer network as shown above. However, Guttman – Ross do not teach an association of a plurality stored data packets, wherein each timer has a state, the states residing in an array. Specifically, Guttman – Ross teach a packet processing method of a node of a data transfer network where a plurality of timers are associated with a plurality of data packets. Guttman – Ross fail to teach a method of storing a state of each timer into an array.

14. Fiacco et al. (hereinafter, referred to as "Fiacco") teach a packet processing method for a node of a data transfer network *(col. 4, lines 39-41)*, the method comprising associating a plurality of received and stored data packets *(col. 4, lines 37-41)*, wherein each of said plurality of timers has a state, the stats of said plurality of timers residing in an array *(col. 3, lines 26-28)*. It would have been obvious to periodically advance the states of a group of the timers substantially simultaneously.

15. It would have been obvious to one of ordinary skill in the art to have combined the teachings of Guttman, Ross, and Fiacco because they all teach a packet processing method for a node of a data transfer network. Fiacco's teaching of a timer array allows the states of each timer to be stored.

16. As per Claim 3, it would have been obvious to one of ordinary skill in the art that an array storing the timer states comprise either a row or column.

17. As per Claim 4 – 6, it would have been obvious to one of ordinary skill in the art that the claimed array is a multi-port array so that more than one address can be decoded and more than one data transfer can be made during a one read/write cycle. It would have been obvious to set the initial states substantially simultaneously, obtain the states substantially simultaneously, providing the states substantially simultaneously, and advancing the states substantially simultaneously when using a multi-port array. When

accessing the array ports of the multi-port array, it would have been obvious to set a higher priority for the setting/providing steps than the periodically advancing step.

18. As per Claim 7, it would have been obvious to one of ordinary skill in the art that said setting and providing steps are responsive to a request made by the central queue since the queue receives the data packet and the timer associated with the packet is located externally from the queue.

19. As per Claim 8, when a set-timer request and read-timer request are accessed at the same time, it would have been obvious to advance the states of a subgroup of timers of the group of timers.

20. As per Claims 10 – 16 and 18 – 24, they are directed to a packet processing system and a program storage device to perform packet processing method for a node of a data transfer network. Since Guttman – Ross teach the packet processing method for a node of a data transfer network, as applied to Claims 2 - 8 above, Guttman – Ross also teach the claimed packet processing system and program storage device able to perform the packet processing method.

Conclusion

21. Any inquiry concerning this communication from the examiner should be directed to Hari Patel whose telephone number is 571-272-2743. The examiner can normally be reached on Monday – Thursday from 8:00am – 5:30pm and every other Friday from 8:00am – 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee, can be reached at 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of the application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Hari Patel
Examiner
Art Unit 2115

CHUN CAO
PRIMARY EXAMINER